

## ABSTRACT OF THE DISCLOSURE

Embodiments of the present invention include a storage-shelf-router-to-disk-  
5 drive interconnection method within a high-availability storage shelf amenable to dynamic  
reorganization in order to ameliorate error conditions that arise within the high-availability  
storage shelf. In one embodiment, each path-controller card within the storage shelf is  
interconnected to two storage-shelf routers on separate storage-shelf-router cards via two  
serial management links and two serial data links. Different types of errors that may arise  
10 within the storage shelf are carefully classified with respect to a number of different error-  
handling techniques, including local path failovers, single path failovers, error reporting and  
logging, and other types of error handling techniques. In many implementations, particular  
error handling methods are configurably associated with particular errors, in order to adapt  
error behavior in a storage shelf to the needs and requirements of a system that includes the  
15 storage shelf. Additional embodiments of the present invention concern detection and  
diagnosis of errors, in addition to handling errors that arise within a storage shelf.